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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,418	06/29/2001	Janne Aaltonen	367.40304X00	5219

20457 7590 12/13/2005

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2614	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/893,418	AALTONEN ET AL.	
	Examiner	Art Unit	
	Michael R. Shannon	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 September 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed September 19, 2005 have been fully considered but they are not persuasive.

The applicant has traversed the rejections of claims 1-13, 16-18, and 20-27 under 35 USC §102(a) as being anticipated by Rebhan (WO 99/33076). The Applicant's main argument is that the teachings of Rebhan pertaining to the processing of the one or more pieces of information in dependence upon the specific DVB network does not anticipated the independent claims. The independent claim language that the Applicant refers to is the interrogation a second network to determine the location of the transmitter on a first network. As was originally stated in the Office Action dated June 10, 2005, the Examiner notes that the functionality of the claim is met by the secondary bi-directional transfer network 130 being used to transfer the information of the locality of the information consumer to the information transfer point 110 [page 8, lines 30-33]. The secondary bi-directional transfer network (such as NMT, GSM, PSTN, Internet, etc) [page 4, line 32 – page 5, line 2] is associated with the broadcasting receiver of the information consumer 190 through the transceiver 192 [page 16, lines 19-22]. The information transfer point 110 interrogates the broadcasting receiver 190 to establish "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19]. The transfer configuration information and access information tells the DVB network where and how to contact the information consumer. Even the abstract teaches that the secondary bidirectional transfer network provides information

of where the DVB receiver (191) of the information consumer is located so that only suitable DVB transmitters (146) in the area are used for the information transfer itself. These teachings clearly show that the independent claims, as argued, were and still are very well anticipated by the Rebhan reference.

Furthermore, the Applicant notes that the bottom of page 18 and through the middle of page 19 [of Rebhan] suggests methodologies which Rebhan indicates will not work satisfactory and therefore would not motivate a person of ordinary skill in the art to modify the teachings of Rebhan to use technologies which Rebhan teaches are not operative appropriately in his system. The Examiner disagrees with this analysis. While Rebhan doe state that these technologies can be seen as a "disadvantage at times", he never teaches away from using them and certainly never says that they will not operate appropriately in his system. In fact, he teaches that they could be used, but that they do have their downfalls. These downfalls, however, would not hinder one from using the technologies in the system.

The Applicant has also taken issue with the OFFICIAL NOTICE statements for the rejections of claims 14, 15, and 19. The Examiner would like to submit, for the record, the well-accepted definitions of Home Location Register (HLR) and Triangulation, as defined in Newton's Telecom Dictionaries, 13th and 15th editions, respectively. Newton's Telecom Dictionary 13th edition, dated in 1998 states that a Home Location Register (HLR) is a wireless telecommunications term and that it is located on the SCP (Signal Control Point) of the cellular provider of record, and is used to identify/verify a subscriber; it also contains subscriber data related to features and

services. Therefore, the Examiner remains firm in his OFFICIAL NOTICE that a Home Location Register would have been obvious to use in the present invention, according to the previous Office Action. Also, Newton's Telecom Dictionary 15th edition, dated in 1999 states that Triangulation is used locate a source of a radio signal through the use of three receivers, each of which focuses on the direction of maximum signal strength. Triangulation allows a system to easily plot the general location of the transmitter/receiver. Therefore, the Examiner remains firm in his OFFICIAL NOTICE that base station triangulation would have been obvious to use in the present invention, according to the previous Office Action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-13, 16-18, and 20-27 are rejected under 35 U.S.C. 102(a) as being anticipated by Rebhan et al (WO 99/33076), cited by applicant.

Regarding claim 1, the claimed "method for locating a terminal for delivery of content in a broadcast network" is met as follows:

- The claimed step of "associating the terminal with a transmitter operable in another network" is met by the secondary bi-directional transfer network 130 being used to transfer the information of the locality of the information

consumer to the information transfer point 110 [page 18, lines 30-33]. The secondary bi-directional transfer network (such as NMT, GSM, PSTN, Internet, etc) [page 4, line 32 – page 5, line 2] is associated with the broadcasting receiver of the information consumer 190 through the transceiver 192 [page 16, lines 19-22].

- The claimed step of "interrogating the another network to determine the location of the transmitter" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19].
- The claimed step of "delivering the content to the terminal at the location of the transmitter" is met by the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 2, the claimed "system for delivering content to a terminal in a broadcast network" is met as follows:

- The claimed "at least one terminal in a broadcast network, the terminal being associated with a transmitter in another network" is met by the broadcasting receiver 190, which is associated with the secondary bi-directional transfer network 130 via transceiver 192 [page 16, lines 19-22].

- The claimed "broadcast network includes a processor operable to interrogate the another network to determine the location of the transmitter and thereby deliver content to the terminal at the determined location" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19]. Finally, the delivery is met by the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 3, the claimed "apparatus for delivering content to a terminal in a broadcast network" is met as follows:

- The claimed "processor operable to interrogate another network to determine the location of a transmitter associated with the terminal and deliver content to the terminal at the determined location" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19]. Finally, the delivery is met by the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 4, the claimed "head end apparatus for use in a first multi-transmitter broadcast network" is met as follows:

- The claimed "terminal locator operable in response to a request to deliver content to a terminal in the first network to obtain terminal location information from a second, different network" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19]. Finally, the delivery is met by the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].
- The claimed "memory having stored therein transmitter location information and a controller operable in response to the request to transmit content to the terminal and to determine from transmitter location information of a suitable transmitter to deliver the content to the terminal" is met by the access information database 120, which is used to identify the secondary bi-directional transfer network 130 and access in that network to an information consumer [page 16, lines 22-25]. The access information is then used to transfer the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by

the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 5, the claimed "apparatus as claimed in claim 4, wherein the terminal locator is further operable to identify said second, different network type from said request" is met by the access information database's 120 ability to identify the secondary bi-directional transfer network 130 to the information transfer point 110 [page 16, lines 22-25].

Regarding claim 6, the claimed "apparatus as claimed in claim 4, wherein the terminal locator is further operable to determine a source of said request" is met by the consumer request for information and the information transfer point retrieving the requested information and transferring the information over the DVB system to the digital video broadcasting receiver that requested the information [page 9, lines 20-28].

Regarding claim 7, the claimed "apparatus as claimed in claim 4, further including a router connectable to a plurality of transmitters and operable to deliver the content to the suitable transmitter" is met by the inherent router taught by the routing of the requested information to the appropriate transmitter (based on the transfer configuration information) [page 9, lines 29-34].

Regarding claim 8, the claimed "terminal for use with a first multi-transmitter broadcast network" is met as follows:

- The claimed "receiver operable to receive content transmitted by a selected one of a plurality of transmitters of the first network" is met by the DVB receiver 191 of the broadcasting receiver 190 for receiving broadcast

information from the DVB network 140 [page 16, lines 19-22]. The DVB receiver 191 can receive information over a selected transmitter of the DVB network 140 [page 9, lines 29-34].

- The claimed "further transmitter connected to a second network from which the first network derives information relating to the location of the further transmitter by the first network interrogating the second network to determine the location of the further transmitter to facilitate selection of the one transmitter" is met by the broadcasting receiver 190, which is associated with the secondary bi-directional transfer network 130 via transceiver 192 [page 16, lines 19-22]. The broadcasting receiver 190 then provides the information transfer point 110, via the secondary bi-directional transfer network, with transfer configuration information that identifies the selected transmitter for delivery of information over the DVB network 140 [page 9, lines 11-13 and 29-34].

Regarding claim 9, the claimed "terminal as claimed in claim 8, wherein the further transmitter provides a back channel to send a request for specific content to the first network" is met by the back channel provided in the secondary bidirectional transfer network. The broadcasting receiver 190 requests information from the information provider 100 and information transfer point 110 via transceiver 192 and secondary bi-directional transfer network 130 [page 9, lines 7-13].

Regarding claim 10, the claimed "terminal as claimed in claim 8, wherein the further transmitter is included in a mobile station interfaced with the terminal" is met by

the transceiver 192, which is interfaced with the broadcasting receiver 190 [page 16, lines 19-21].

Regarding claim 11, the claimed "system for delivering content to a mobile terminal" is met as follows:

- The claimed "first broadcast network having a plurality of transmitters" is met by the DVB network 140 with multiple transmitters to cells 145, 146, and 147 [page 16, lines 16-17].
- The claimed "at least one terminal, the terminal having a receiver for receiving content from the first network, and in proximity thereto a further transmitter connected to a second network from which the first network derives information relating to the location of the further transmitter, wherein the selection of a transmitter to deliver content to the terminal is made in accordance with the location information" is met by the DVB receiver 191 of the broadcasting receiver 190 for receiving broadcast information from the DVB network 140 [page 16, lines 19-22]. The DVB receiver 191 can receive information over a selected transmitter of the DVB network 140 [page 9, lines 29-34]. Also, the further transmitter is met by the broadcasting receiver 190, which is associated with the secondary bi-directional transfer network 130 via transceiver 192 [page 16, lines 19-22]. The broadcasting receiver 190 then provides the information transfer point 110, via the secondary bi-directional transfer network, with transfer

configuration information that identifies the selected transmitter for delivery of information over the DVB network 140 [page 9, lines 11-13 and 29-34].

Regarding claim 12, the claimed "system as claimed in claim 11, wherein the further transmitter is integrated with the terminal" is met by the transceiver 192, which is a part of the broadcasting receiver 190 [page 16, lines 19-21].

Regarding claim 13, the claimed "system as claimed in claim 11, wherein the second network is a public land mobile network" is met by the different secondary bi-directional transfer networks proposed for use in this system, such as NMT, GSM, PSTN, Internet, etc. [page 4, line 32 – page 5, line 2].

Regarding claim 16, the claimed "system as claimed in claim 11, wherein the further transmitter provides location information" is met by the consumer (broadcasting receiver 190) providing the information transfer point 110, via the secondary bi-directional transfer network 130, with transfer configuration information that identifies the location of the consumer [page 9, lines 11-13].

Regarding claim 17, the claimed "system as claimed in claim 16, wherein the location information is obtained from a global positioning system receiver" is met by the locality information (transfer configuration information) being acquired using GPS technology and sent to the information transfer point 110 via the secondary bidirectional transfer network 130 [page 18, line 30 – page 19, line 2].

Regarding claim 18, the claimed "method of delivering content using a selected transmitter of a first broadcast network to a first terminal in proximity to a second terminal in a second network" is met as follows:

- The claimed step of "deriving location information relating to the second terminal from the second network" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19].
- The claimed step of "utilizing the location information in the selection of the selected transmitter" is met by the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 20, the claimed "method as claimed in claim 18, wherein the location information is derived from co-ordinates transmitted by the second terminal" is met by the locality information (transfer configuration information) being acquired using GPS technology (coordinates of the sending device) and sent to the information transfer point 110 via the secondary bidirectional transfer network 130 [page 18, line 30 – page 19, line 2].

Regarding claim 21, the claimed "apparatus of claim 5, wherein the terminal locator is further operable to determine a source of said request" is met by the consumer request for information and the information transfer point retrieving the requested information and transferring the information over the DVB system to the digital video broadcasting receiver that requested the information [page 9, lines 20-28].

Regarding claim 22, the claimed "apparatus as claimed in claim 5, further including a router connectable to a plurality of transmitters and operable to deliver the content to the suitable transmitter" is met by the inherent router taught by the routing of the requested information to the appropriate transmitter (based on the transfer configuration information) [page 9, lines 29-34].

Regarding claim 23, the claimed "apparatus as claimed in claim 6, further including a router connectable to a plurality of transmitters and operable to deliver the content to the suitable transmitter" is met by the inherent router taught by the routing of the requested information to the appropriate transmitter (based on the transfer configuration information) [page 9, lines 29-34].

Regarding claim 24, the claimed "terminal as claimed in claim 9, wherein the further transmitter is included in a mobile station interfaced with the terminal" is met by the transceiver 192, which is interfaced with the broadcasting receiver 190 [page 16, lines 19-21].

Regarding claim 25, the claimed "system as claimed in claim 12, wherein the second network is a public land mobile network" is met by the different secondary bi-directional transfer networks proposed for use in this system, such as NMT, GSM, PSTN, Internet, etc. [page 4, line 32 – page 5, line 2].

Regarding claim 26, the claimed "system as claimed in claim 12, wherein the further transmitter provides location information" is met by the consumer (broadcasting receiver 190) providing the information transfer point 110, via the secondary bi-

directional transfer network 130, with transfer configuration information that identifies the location of the consumer [page 9, lines 11-13].

Regarding claim 27, the claimed "system as claimed in claim 13, wherein the further transmitter provides location information" is met by the consumer (broadcasting receiver 190) providing the information transfer point 110, via the secondary bi-directional transfer network 130, with transfer configuration information that identifies the location of the consumer [page 9, lines 11-13].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 14, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rebhan et al (WO 99/33076), cited by applicant.

Regarding claim 14, the Rebhan reference teaches all of that which is discussed above with regards to claim 13. The Rebhan reference does not, however, expressly disclose that the location information is derived from a Home Location Register of the public land mobile network. The Rebhan reference does suggest the use of other methods of locating the information consumer 190, such as information that the cell based secondary bi-directional transfer network 130 generates [page 19, lines 5-7]. However, Rebhan does not disclose these "other methods" expressly. The examiner

takes Official Notice that is it notoriously well known in the art to use Home Location Register's to determine the location of mobile devices in a mobile network. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to utilize a HLR for deriving location information, in order to use an already existing technology that is commonly used within a mobile network for recognizing subscriber location information.

Regarding claim 15, the Rebhan reference teaches all of that which is discussed above with regards to claim 13. The Rebhan reference does not, however, expressly disclose that the location information is derived by base station triangulation. The Rebhan reference does suggest the use of other methods of locating the information consumer 190, such as information that the cell based secondary bi-directional transfer network 130 generates [page 19, lines 5-7]. However, Rebhan does not disclose these "other methods" expressly. The examiner takes Official Notice that is it notoriously well known in the art to use base station triangulation to determine the location of mobile devices in a mobile network. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to utilize base station triangulation for deriving location information, in order to use an already existing technology that is commonly used within a mobile network for recognizing subscriber location information.

Regarding claim 19, the Rebhan reference teaches all of that which is discussed above with regards to claim 18. The Rebhan reference does not, however, expressly disclose that the location information is derived from a Home Location Register of the

second network. The Rebhan reference does suggest the use of other methods of locating the information consumer 190, such as information that the cell based secondary bi-directional transfer network 130 generates [page 19, lines 5-7]. However, Rebhan does not disclose these "other methods" expressly. The examiner takes Official Notice that is it notoriously well known in the art to use Home Location Register's to determine the location of mobile devices in a mobile network. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to utilize a HLR for deriving location information, in order to use an already existing technology that is commonly used within a mobile network for recognizing subscriber location information.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Shannon who can be reached at (571) 272-7356 or Michael.Shannon@uspto.gov. The examiner can normally be reached by phone Monday through Friday 8:00 AM – 5:00PM, with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (571) 272-7353.

Any response to this action should be mailed to:

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Effective January 14, 2005, except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

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Or faxed to: (571) 273-8300

Hand-delivered responses should be brought to:

Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **(571) 272-2600**.

Michael R Shannon
Examiner
Art Unit 2614

Michael R Shannon
December 1, 2005

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600